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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,631	07/17/2003	Mark Wilson Anderson	TS 6380 (US)	1859
23632	7590	11/15/2005		
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463				
			EXAMINER MAZZUCA JR, DOUGLAS	
			ART UNIT 3726	PAPER NUMBER

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/621,631	ANDERSON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Douglas E. Mazzuca	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 2-6, and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/17/03, 5/3/04</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Specification*

1. The abstract of the disclosure is objected to because the heading of the abstract cannot contain the title of the invention. The heading may either be "Abstract" or "Abstract of the Disclosure". Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities:

On page 2, line 6, the phrase "shape that these" creates a run on sentence, it is suggested the phrase be changed to --shape. These--

On page 9, line 2, the number "3" is believed to read --13--.

On page 16, line 6, the end parenthesis is positioned wrong, suggest placing parenthesis at end of sentence, or after "2 mm".

On page 17, line 16, the term "metal" is used twice, suggest deleting first "metal" term.

On page 20, line 20, the term "coils" should read --coil--.

On page 23, line 1, "the end" should read, --then the end--.

On page 42, line 10, "to than" should read, --than--.

Appropriate correction is required.

4. The use of the trademark LEGOLAND has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent No. 5,924,745) in view of Moe (US Patent No. 4,669,650).

In regards to claims 1 and 10, Campbell discloses:

A: A method of joining expandable tubulars (**column 1 lines 4-5**).

B: Radially expanding the joined tubulars (**column 1 lines 14-16, column 4 lines 17-18**).

Campbell, however, fails to disclose a forge welding process and the use of a reducing and inert gas. Moe teaches joining tubulars using a forge welding process (**column 1 lines 5-7**). Moe also teaches flushing an inert and reducing gas into the joint in order to ensure almost complete oxide removal (**column 1 lines 12-14, column 2 lines 1-15, column 2 lines 65-67, column 3 lines 47-51**), in turn removing impurities, while at the same time, making the gas non-explosive. Forge welding, rather than using fasteners to hold the tubulars together, creates a stronger bond between the tubulars which can hold up to greater stresses than. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of joining expandable tubulars of Campbell with the forging process and reducing and inert gas technique of Moe in order to facilitate the combination of expandable tubulars through welding, creating a stronger bond, while removing impurities in the joint in a non-explosive way.

7. In regards to claim 7, all components of the claim are listed above except the following: the tubulars overlapping each other, and heating the overlapping tubular ends to a forging temperature and pressing them together. Campbell discloses combining a pair of overlapping tubulars (**column 1 lines 45-50**). Campbell fails to disclose a forge welding technique. However, Moe (4,669,650) teaches joining tubulars together through a forge welding technique (**column 1 lines 5-7**) while heating the tubular ends (**column 1 lines 11-12**) to a forge welding temperature and pressing the heated tubular ends together (**column 2 lines 42-44**). Overlapping tubulars while forge welding them together creates a stronger connection rather than tubes joined at flat ends with either a

Art Unit: 3726

forging or fastener method. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the overlapping tubulars of Campbell with the forging and flushing gas technique of Moe in order to create a stronger joint connection.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent No. 5,924,745) in view of Moe (US Patent No. 4,669,650) and further in view of Denneen (US Patent No. 2,604,569). Campbell and Moe teach all of the components of the claim except that the tubular ends are teathed or sinusoidal in shape. Denneen teaches the tubular ends to be either toothed (**figure 1, 12 and 13**) or sinusoidal in shape (**figure 2, surfaces 36 and 38, column 4 lines 29-36**). The purpose of creating a toothed or sinusoidal surface is to alleviate pressure and stress along one plane.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of joining expandable tubulars of Campbell with the forging process and reducing flushing gas of Moe along with the shaped tubular ends of Denneen in order to reduce the pressure and stresses being imposed on the joint plane by the unfolding and/or expansion process by spreading the weld over a greater surface area.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent No. 5,924,745) in view of Moe (US Patent No. 4,669,650), and further in view of Ueno et al. (US Patent No. 4,384,657). Campbell, and Moe (4,669,650) teach all of the above except the composition of the flushing gas. Ueno et al. teach a flushing gas comprising 90% by volume nitrogen and at least 2% by volume

hydrogen (**column 13 lines 59-61**). The purpose of having a flushing gas containing hydrogen and nitrogen while welding a product is not only to remove oxides using hydrogen, but to do so in a non-explosive way by surrounding the atmosphere with nitrogen. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of joining expandable tubulars of Campbell with the forging process of Moe, along with the reducing and inert gas techniques of Moe and Ueno et al. in order to completely eliminate the presence of oxides while doing so in a safe and non-explosive environment.

***Allowable Subject Matter***

10. Claims 2-6, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bliault et al. (US Patent No. 6,078,031), Blaschke (US Patent No. 3,689,113), Wood et al. (US Patent No. 5,435,478).

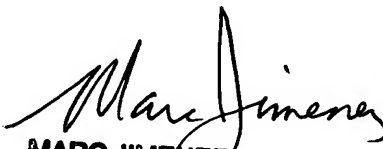
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas E. Mazzuca whose telephone number is (571)272-7813. The examiner can normally be reached on 7:30AM-4PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571)272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Mazzuca  
11/8/05

DEM

  
**MARC JIMENEZ**  
**PRIMARY EXAMINER**  
11/9/05